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### REMARKS

Applicants hereby add new claim 86.

Claims 1, 4-5, 6-8, 11-12, 14-15, 17, 22, 24, 26-29, 31-35, 37-38, 40-44, 46-60, 62, 64, 73-74, 76-82 and 85 stand rejected under 35 USC 103(a) for obviousness over U.S. Patent No. 5,726,630 to Marsh et al. in view of U.S. Patent No. 4,692,769 to Gegan. Claims 2-3, 13, 18-20, 23, 39, 45 and 75 stand rejected under 35 USC 103(a) for obviousness over Marsh in view of Gegan and Murakami. Claims 9-10, 16, 25, 30, 36, 61 and 83-84 stand rejected under 35 USC 103(a) for obviousness over Marsh and Gegan further in view of U.S. Patent No. 6,215,402 to Kodulkala et al. Claim 21 stands rejected under 35 USC 103(a) for obviousness over Marsh in view of Gegan and further in view of Murakami and Kodulkala et al. Claims 65, 68-69 and 71-72 stands rejected under 35 USC 103(a) for obviousness over Marsh in view of Gegan and further in view of U.S. Patent No. 5,320,561 to Cook et al. Claim 70 stands rejected under 35 USC 103(a) for obviousness over Marsh, Gegan and Kodulkala and further in view of Cook. Claim 66 stands rejected under 35 USC 103(a) for obviousness over Marsh, Gegan and Murakami and further in view of Cook. Claims 63 and 67 stand rejected under 35 USC 103(a) for obviousness over Marsh and Gegan and further in view of U.S. Patent No. 5,528,222 to Moskowitz et al. and Cook.

Applicants respectfully request reconsideration of the rejections.

Referring to independent claim 1, the *remote communication device comprises a dipole antenna simultaneously substantially tuned to first and second different frequency bands*. Applicants have electronically searched Marsh and Gegan and failed to uncover any dipole teachings. In addition, the Office relies upon the teachings of

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Gegan as teachings a dual frequency band microstrip antenna. However, as disclosed in col. 2, lines 5+ and col. 2, lines 20+ of Gegan, the dual band antenna is a coplanar slotted disc microstrip antenna which fails to teach or suggest the claimed dipole antenna. The prior art references of Marsh and Gegan taken alone or in combination fail to teach or suggest the limitations of a dipole antenna simultaneously substantially tuned to first and second different frequency bands as recited in claim 1. Positively-recited limitations of claim 1 are not disclosed nor suggested by the prior art and Applicants respectfully submit that claim 1 recites allowable subject matter for at least this reason.

The claims which depend from claim 1 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 11, the *remote communication device comprises a quarter-wavelength transmission line coupled intermediate the communication circuitry and the antenna*. At page 4 of the Action and in support of the rejection of claim 7, the Office fails to identify any prior art teachings of a quarter-wavelength transmission line. Applicants respectfully submit that the claimed *quarter-wavelength transmission line coupled intermediate the communication circuitry and the antenna* in combination with the other limitations of claim 11 are not disclosed nor suggested by the prior art and the 103 rejection is improper.

The claims which depend from claim 11 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

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Referring to independent claim 18, the *radio frequency identification device comprises an antenna simultaneously tuned to a plurality of resonant frequencies including approximately 915 MHz and 2.45 GHz*. The Office at page 11 of the Action relied upon the teachings of Kodulkala at col. 5, lines 40-67 as disclosing 915 MHz and 2.45 GHz which are conventionally known and used for RFID communication. However, these teachings merely state that the length of a quarter wave transformer 132 may be chosen to be one quarter of 915 MHz or 2.45 GHz which fails to teach or suggest the claimed *antenna simultaneously tuned to a plurality of resonant frequencies including approximately 915 MHz and 2.45 GHz*. Positively-recited limitations of claim 18 are not disclosed nor suggested by the prior art and claim 18 is allowable for at least this reason.

The claims which depend from claim 18 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Claim 22 recites *a battery positioned with a loop antenna to tune the loop antenna to one of the frequencies*. In support of the rejection of claim 63, the Office relied upon Fig. 8 of Moskowitz as teachings known placement of a battery in the center of a loop antenna for efficient packaging. Applicants have searched and failed to uncover any teaching with reference to Fig. 8 in Moskowitz that the antenna of Fig. 8 is a loop antenna. Applicants have failed to uncover any teachings in Moskowitz with respect to "efficiency" or that the battery is placed within an antenna for efficient packaging as alleged by the Office. Furthermore, Cook at col. 1, lines 52+ and col. 4, lines 57+ teaches that it is acknowledged that a battery may load an antenna and such

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must be accounted for when an antenna is tested in an absence of the battery. Applicants respectfully submit that the generic realization of antenna loading and specific testing in the absence of the battery fails to teach or suggest the claimed limitations of a *battery positioned within a loop antenna to tune the loop antenna to one of the frequencies*. Applicants respectfully submit that limitations of claim 22 are not disclosed by the prior art even if the references are combined and Applicants request allowance of claim 22 for at least this reason.

The claims which depend from claim 22 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Claim 26 recites that the antenna includes an impedance reduction conductor and the antenna is simultaneously substantially tuned to a plurality of frequencies. Fig. 2A of Kodukala relied upon by the Office in support of the rejection of claim 10 includes an impedance matching circuit between antenna 118 and IC 124 which fails to teach the limitations of the *antenna including the impedance reduction conductor* as specifically claimed. Positively-recited limitations of claim 26 are not disclosed nor suggested by the prior art references taken alone or in combination and the rejection of claim 26 is allowable for at least this reason.

The claims which depend from claim 26 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 31, the teachings of Cook acknowledging that a battery may load an antenna and such must be accounted for when an antenna is tested in an

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absence of the battery fails to teach or suggest the claimed limitations of the remote communication device being configured to communicate wireless signals at a plurality of frequencies and a *battery positioned to tune the antenna to one of the frequencies.* Positively-recited limitations of claim 31 are not disclosed nor suggested by the prior art references taken alone or in combination and the rejection of claim 31 is allowable for at least this reason.

The claims which depend from claim 31 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to independent claim 38, the method recites *providing a remote communication device having an antenna simultaneously substantially tuned to first and second different frequency bands and the antenna is not tuned to at least one frequency between the first and the second different frequency bands.* The primary reference Marsh teaches a continuous reception bandwidth of the transponder between 800 MHz and 1 GHz and Applicants have failed to uncover any teaching or suggestion of limitations that the antenna is not tuned to at least one frequency between the first and the second different frequency bands. Positively-recited limitations of claim 38 are not disclosed nor suggested by the prior art references taken alone or in combination and the rejection of claim 38 is allowable for at least this reason.

The claims which depend from claim 38 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

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Claim 44 recites limitations of previous pending claim 70 and recites *tuning the antenna to at least one of the frequencies using a power source and an impedance reduction conductor*. Kodulkala teaches impedance matching between an antenna and an IC and fails to teach or suggest *tuning an antenna to one of the frequencies using an impedance reduction conductor* as specifically claimed. Furthermore, Cook teaches the importance of accounting for loading caused by a battery during testing in the absence of the battery which fails to teach or suggest tuning antenna to one of the frequencies using a power source. Positively-recited limitations of claim 44 are not disclosed nor suggested by the prior art references taken alone or in combination and the rejection of claim 44 is allowable for at least this reason.

The claims which depend from claim 44 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Independent claim 50 recites providing a radio frequency identification device configured to *communicate wireless signals at a plurality of frequencies using one antenna comprising a dipole antenna simultaneously substantially tuned to the frequencies*. Marsh and Gegan disclose patch antenna configurations for communicating at different frequencies. Applicants have failed to uncover any teachings in the prior art of *one antenna comprising a dipole antenna simultaneously substantially tuned to a plurality of frequencies*. Positively-recited limitations of claim 50 are not disclosed nor suggested by the prior art references taken alone or in combination and the rejection of claim 50 is allowable for at least this reason.

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The claims which depend from claim 50 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Claim 54 recites *tuning the one antenna to one of the frequencies using a power source*. Cook teaches the importance of accounting for loading caused by a battery during testing in the absence of the battery which fails to teach or suggest tuning an antenna to one of the frequencies using a power source. Positively-recited limitations of claim 54 are not disclosed nor suggested by the prior art and claim 54 is allowable for at least this reason.

The claims which depend from claim 54 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Independent claim 57 recites *substantially tuning the at least one antenna to simultaneously communicate at a plurality of frequencies and wherein the tuning comprises tuning the at least one antenna to communicate at one of the frequencies using an impedance reduction conductor*. The impedance matching of the antenna and the IC of Kodulkala fails to teach or suggest tuning of communications of an antenna or tuning *the at least one antenna to communicate at one of the frequencies using an impedance reduction conductor*. Positively-recited limitations of claim 57 are not disclosed nor suggested by the prior art and claim 57 is allowable for at least this reason.

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The claims which depend from claim 57 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 62, Marsh and Gegan disclose communicating over a range of frequencies using patch antenna arrangements. Marsh and Gegan are void of teaching or suggesting the claimed limitations of *modulating a continuous wave signal according to the return signal using another antenna of the radio frequency identification device comprising a dipole antenna substantially tuned to the plurality of frequencies*. Positively-recited limitations of claim 62 are not disclosed nor suggested by the prior art and claim 62 is allowable for at least this reason.


The claims which depend from claim 62 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Support for the new claim 86 and claim amendments may be found at Figs. 4-6 and the associated teachings of the specification.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at any time during normal business hours (Pacific Time Zone).

Respectfully submitted,

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